

Please replace the paragraph at page 37, lines 6-13, with the following rewritten paragraph:

A3
As shown in FIG. 6, the furnace 60 has inside thereof a space 72 capable of setting a case 70, and a heater 74 used to heat the case 70 set in the space 72. The case 70 is composed of, for example, a material such as graphite, ceramics, cerapaper (heat-insulating material composed of ceramics such as alumina). The graphite is set in the case 70.

Please replace the paragraph at page 47, lines 5-15, with the following rewritten paragraph:

A4
As shown in FIG. 15, the heat sink material 10C according to the third embodiment is constructed by pressurizing a mixture obtained by mixing powder 12b of carbon or allotrope thereof and a binder (binding agent) etc. to prepare a preformed product or a block (preferably having a cubic, rectangular parallelepiped, or arbitrary configuration), and infiltrating the block with the metal. The same powder 12b as the powder 12a of carbon or allotrope thereof used in the second embodiment may be used. The heat sink material 10C can be manufactured to have an arbitrary shape which is approximate to the final shape.

Please replace the paragraph at page 51, lines 9-22, with the following rewritten paragraph:

A5
Next, explanation will be made with reference to FIG. 18 for a sixth production method for the heat sink material 10a according to the third embodiment. In the sixth production method, at first, molten metal 14 obtained by melting metal or metal in a solid-liquid co-existing state (solid-liquid co-existing metal) is prepared (step S701). In this procedure, the term "solid-liquid co-existing metal" refers to one obtained by making metal (generally alloy) be in a semi-molten state or one obtained by cooling and agitating molten

A5
and
metal into a semisolidified state. That is, the term refers to both of a metal in the semi-molten state obtained by heating and a metal in the semisolidified state obtained by completely melting and being cooled afterwards.

Please replace the paragraph at page 55, line 23 -- page 56, line 6, with the following rewritten paragraph:

A6
The compressive strength of carbon (standard: JIS R 1608, method for testing compressive strength of fine ceramics) is 24.5 to 34.3 MPa (250 to 350 kgf/cm²) in the surface direction and 34.3 to 44.1 MPa (350 to 450 kgf/cm²) in the thickness direction. Therefore, according to this experiment, it has been confirmed that no problem arises in production even when the infiltration pressure having four to five times the carbon compressive strength is applied in the infiltrating step.

In the Claims:

Please rewrite claims 1, 6-9, 11-16, 18, 20, 22, 24-31, 33, 35, 37, 39, 41, 44-49 and 51-65 as follows:

A7
1. (Amended) A heat sink material comprising carbon or allotrope thereof and metal,
wherein an average coefficient of thermal conductivity of those in directions of orthogonal three axes, or a coefficient of thermal conductivity in a direction of any axis is not less than 160 W/mK.

A8
6. (Amended) The heat sink material according to claim 1, wherein said heat sink material is constructed by infiltrating a porous sintered member with said metal, said